

NON-PUBLIC?: N
ACCESSION #: 8710290134
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Clinton Power Station PAGE: 1 of 3

DOCKET NUMBER: 05000461

TITLE: Misoperation of Non-Class 1E 125 Volts Direct Current Breaker By
Utility Non-Licensed Operator Resulting in Automatic Reactor Trip
EVENT DATE: 10/02/87 LER #: 87-060-00 REPORT DATE: 10/25/87

OPERATING MODE: 1 POWER LEVEL: 090

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: R. F. Schaller, Assistant Plant Manager - Operations
TELEPHONE #: 217-935-8881 Ext. 3205

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: On October 2, 1987 at 1238 hours, with the plant in Mode 1 (POWER OPERATION) at 90% Reactor Power, a Non-Class 1E 125 Volts Direct Current (VDC) breaker misoperation by a utility non-licensed operator initiated a transient resulting in an automatic Reactor trip. The operator was aligning breakers to support maintenance of the Non-Class 1E batteries. The operator incorrectly opened a cross tie breaker between the two Non-Class 1E 125 VDC Distribution Panels, deenergizing one of the panels resulting in a reactor high water level trip. The cause of the event has been attributed to utility non-licensed operator failure to correctly align the circuit breakers. The operator was not certain that he had found the correct breaker prior to the misoperation. The operator has been counselled for the failure to resolve the breaker question with his supervisor. The Non-Class 1E 125 VDC bus power feeds are being reviewed and will be relabeled as necessary. As an interim measure, a one-line diagram has been installed on the Non-Class 1E Direct Current breaker panels identifying the location of breakers. The event was assessed as not safety significant; the transient is bounded by Chapter 15 of the Final Safety Analysis Report. This event is reportable under the provisions of 10CFR50.73(a)(2)(iv) due to an automatic actuation of the Reactor Protection System.

(End of Abstract)

DESCRIPTION

On October 2, 1987 at 1238 hours, with the plant in Mode 1 (POWER OPERATION) at 90% Reactor Power, a Non-Class 1E 125 Volts Direct Current (VDC) (EI) breaker (72) misoperation initiated a transient resulting in an automatic Reactor (RCT) trip. The event occurred during maintenance of the two Non-Class 1E 125 VDC Batteries (BTRY), 1E and 1F. Battery Bus (BU) 1E was being supplied by Battery 1E and Battery Charger (BYC) 1E. Battery Bus 1F was being powered by Battery Charger 1F, and Distribution Panel (PL) 1F was cross tied and drawing power from Distribution Panel 1E. The feeder breaker from Battery Bus 1F to Distribution Panel 1F was open for maintenance of Battery 1F. The next activity was to restore Battery 1F, restore Distribution Panels 1E and 1F to normal, and then line up Distribution Panel 1F to supply Distribution Panel 1E. The activity was prebriefed by the Line Assistant Shift Supervisor (LASS) and the non-licensed operator was to follow the applicable steps of the "Battery and DC (Direct Current) Distribution" operating procedure.

The non-licensed operator went to the breaker panel but was not sure which breaker was the correct one to operate. The operator then left the breaker panel and consulted with another non-licensed operator who indicated that the operator had determined the correct breaker. The non-licensed operator returned to the breaker panel, closed the supply breaker between Battery 1F and Battery Bus 1F and opened the 1F Distribution Panel cross tie with Distribution Panel 1E. The operator did not know that the Distribution Panel main feed breaker existed. This action deenergized Distribution Panel 1F. At that time the control room operator (CRO) instructed the non-licensed operator via gaitronics (FI) to re-close the cross tie.

In the main control room, a loss of DC power alarm (JA) occurred. Feedwater (SF) level control (LC) input was being provided by channel B. When Distribution Panel 1F deenergized, the feedwater level signal failed low, initiating a high feedwater demand. The reactor water level increased to level 8 (high water level) and the reactor tripped. The A, B, and C feedpumps (P) received trip signals. The turbine (TG) tripped, but the "B" side nonvital buses did not shift to reserve power due to a loss of DC control power to the breakers (52). Reactor water level dropped to the reactor recirculation (RR) (AD) pump downshift set point. The "A" RR pump attempted to downshift but could not due to the "B" RR pump fast speed breaker still being closed (breaker lost DC control power). This resulted in a loss of both RR pumps. With restoration of the 1F Distribution Panel, control power was regained to the "B" side nonvital buses. The CRO was monitoring the reactor water level decrease, and at about 30", the level 8 trip was reset and the

motor (MO) driven feed pump started to regain water level. No other automatic or manually initiated safety system responses were required to place the plant in a safe and stable condition.

No other equipment or components were inoperable at the time of this event that contributed to this event.

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CAUSE OF EVENT

The cause of the event has been attributed to utility non-licensed operator error as a result of the failure to correctly align the breakers. The operator had not performed this task previously, and was not certain that he had determined the breaker identified in the procedure step prior to the misoperation. Contributing to the operator error were ambiguously labeled DC breakers.

CORRECTIVE ACTION

The non-licensed operator that opened the 1F Distribution Panel cross tie with Distribution Panel 1E was counselled for not resolving the breaker question with his supervisor.

The Non-Class 1E 125 VDC bus power feeds will be reviewed and relabeled as necessary to provide clear labels. As an interim measure, a one-line diagram identifying the location of DC breakers has been installed on the 1E and 1F DC breaker panels.

ANALYSIS OF EVENT

This event is reportable under the provisions of 10CFR50.73(a)(2)(iv) due to an automatic actuation of the Reactor Protection System.

Assessment of the safety consequences and implications of this event indicates that the event was not significant for existing plant conditions or other plant modes. This transient is bounded by the analysis of Chapter 15 of the Final Safety Analysis Report. The Reactor Protection System responded to this transient as designed.

ADDITIONAL INFORMATION

LER 87-050-00 discussed an automatic actuation of the Reactor Protection System due to a loss of condenser vacuum. This occurred when a utility non-licensed operator incorrectly closed a valve due to a deficient operating procedure.

For further information regarding this event, contact R. F. Schaller,
Assistant Plant Manager - Operations at (217) 935-8881, extension 3205.

ATTACHMENT # 1 TO ANO # 8710290134 PAGE: 1 of 1

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L45-87(10-25)-L
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ILLINOIS POWER COMPANY IP
CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

October 25, 1987

10CFR50.73

Docket No. 50-461

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Clinton Power Station - Unit 1
Licensee Event Report No. 87-060-00

Dear Sir:

Please find enclosed Licensee Event Report No. 87-060-00: Misoperation of
Non-Class 1E 125 Volts Direct Current Breaker By Utility Non-Licensed Operator
Resulting in Automatic Reactor Trip. This report is being submitted in
accordance with the requirements of 10CFR50.73.

Sincerely yours,

/s/ F. A. Spangenberg, III
F. A. Spangenberg, III
Manager
Licensing and Safety

RSF/ckc

Enclosure

cc: NRC Resident Office
NRC Region III, Regional Administrator

INPO Records Center
Illinois Department of Nuclear Safety
NRC Clinton Licensing Project Manager

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